

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of the claims in the application:

Listing of Claims:

1. **(Cancelled)** An apparatus comprising:

a transmitter for transmitting information towards at least a first network unit and a second network unit;

a receiver for receiving information transmitted from at least one network unit; and

a media access controller for issuing data grants; wherein at least one data grant authorizes a first network unit to transmit data at a first bit-rate during at least one time-slot and at least one other data grant authorizes a second network unit to transmit data at a second bit-rate during at least one other time-slot, whereas the second bit-rate differs from the first bit-rate.

2. **(Cancelled)** The apparatus according to claim 1 wherein a data grant authorizes a network unit to transmit at least one cell during at least one time-slot.

3. **(Cancelled)** The apparatus of claim 2 wherein the cells are Asynchronous Transfer Mode cells.

4. **(Cancelled)** The apparatus according to claim 1 wherein the first bit-rate is much slower than the second bit-rate.

5. **(Currently Amended)** An apparatus comprising:

a transmitter for transmitting information towards at least a first network unit
and a second network unit;

a receiver for receiving information transmitted from at least one network unit;
and

a media access controller for issuing data grants; wherein at least one data
grant authorizes a first network unit to transmit data at a first bit-rate during at least
one time-slot and at least one other data grant authorizes a second network unit to
transmit data at a second bit-rate during at least one other time-slot, whereas the
second bit-rate differs from the first bit-rate[.]; ~~The apparatus of claim 1~~ wherein the
ratio between the second bitrate and the first bitrate ranges between two and six.

6. **(Cancelled)** The apparatus of claim 1 wherein the receiver has at least one
reception path adapted to receive information bursts of at least one bit-rate.

7. **(Cancelled)** The apparatus of claim 1 further adapted to receive information
reflecting at least one bit-rate out of the first bit-rate and the second bit-rate.

8. **(Cancelled)** The apparatus according to claim 1 further adapted to request a
network unit capable of transmitting at multiple bit-rates to transmit at certain bit-rate
out of said multiple bit-rates.

9. **(Cancelled)** The apparatus according to claim 8 wherein the apparatus selects
said certain bit-rate in response to network unit related information previously
transmitted from the network unit.

10. **(Cancelled)** The apparatus according to claim 8 wherein the apparatus selects
said certain bit-rate in response to bit-rates of other network units that are coupled to

the apparatus.

11. **(Cancelled)** The apparatus according to claim 8 wherein the apparatus selects said certain bit-rate in response to bandwidth requirements.

12. **(Cancelled)** The apparatus of claim 1 wherein the receiver comprises a first path adapted to receive transmissions of a first bit-rate and further comprises a second path adapted to receive transmissions of a second bit-rate.

13. **(Cancelled)** A method for allocating upstream bandwidth of a shared upstream channel of an optical network, the optical network interconnecting an apparatus with at least a first network unit and a second network unit, the method comprising the stages of:

receiving requests for transmitting information towards the apparatus entity;

and

issuing data grants in response to the requests; wherein at least one data grant authorizes a first network unit to transmit data at a first bit-rate during at least one time-slot and at least one other data grant authorizes a second network unit to transmit data at a second bit-rate during at least one other time-slot, whereas the second bitrate differs from the first bit-rate.

14. **(Cancelled)** The method according to claim 13 wherein a data grant authorizes a network unit to transmit at least one cell during at least one time-slot.

15. **(Cancelled)** The method of claim 14 wherein the cells are Asynchronous Transfer Mode cells.

16. **(Cancelled)** The method according to claim 13 wherein the first bit-rate is much slower than the second bit-rate.

17. **(Currently Amended)** A method for allocating upstream bandwidth of a shared upstream channel of an optical network, the optical network interconnecting an apparatus with at least a first network unit and a second network unit, the method comprising the stages of:

receiving requests for transmitting information towards the apparatus entity;
and

issuing data grants in response to the requests; wherein at least one data grant authorizes a first network unit to transmit data at a first bit-rate during at least one time-slot and at least one other data grant authorizes a second network unit to transmit data at a second bit-rate during at least one other time-slot, whereas the second bitrate differs from the first bit-rate;

wherein a data grant authorizes a network unit to transmit at least one cell during at least one time-slot; and

~~The method according to claim 14~~ wherein the ratio between the second and first bit-rate ranges between two and six.

18. **(Cancelled)** The method according to claim 13 further comprises a stage of receiving, at the apparatus, information from at least one network unit.

19. **(Cancelled)** The method according to claim 18 further adapted to receive information reflecting at least one bit-rate out of the first bit-rate and the second bitrate.

20. **(Cancelled)** The method according to claim 13 further comprising a stage of

requesting a network unit capable of transmitting at multiple bit-rates to transmit at certain bit-rate out of said multiple bit-rates.

21. **(Currently Amended)** A method for allocating upstream bandwidth of a shared upstream channel of an optical network, the optical network interconnecting an apparatus with at least a first network unit and a second network unit, the method comprising the stages of:

receiving requests for transmitting information towards the apparatus entity;

issuing data grants in response to the requests; wherein at least one data grant authorizes a first network unit to transmit data at a first bit-rate during at least one time-slot and at least one other data grant authorizes a second network unit to transmit data at a second bit-rate during at least one other time-slot, whereas the second bitrate differs from the first bit-rate; and

requesting a network unit capable of transmitting at multiple bit-rates to transmit at certain bit-rate out of said multiple bit-rates;

~~The method according to claim 20~~ wherein the stage of requesting is preceded by a stage of selecting said certain bit-rate in response to network unit related information previously transmitted from the network unit.

22. **(Currently Amended)** A method for allocating upstream bandwidth of a shared upstream channel of an optical network, the optical network interconnecting an apparatus with at least a first network unit and a second network unit, the method comprising the stages of:

receiving requests for transmitting information towards the apparatus entity;

issuing data grants in response to the requests; wherein at least one data grant authorizes a first network unit to transmit data at a first bit-rate during at least one time-slot and at least one other data grant authorizes a second network unit to transmit data at a second bit-rate during at least one other time-slot, whereas the second bitrate differs from the first bit-rate; and

requesting a network unit capable of transmitting at multiple bit-rates to transmit at certain bit-rate out of said multiple bit-rates;

~~The method according to claim 20~~ wherein the stage of requesting is preceded by a stage of selecting said certain bit-rate in response to bitrates of other network units that are coupled to the apparatus.

23. (Currently Amended) A method for allocating upstream bandwidth of a shared upstream channel of an optical network, the optical network interconnecting an apparatus with at least a first network unit and a second network unit, the method comprising the stages of:

receiving requests for transmitting information towards the apparatus entity;

issuing data grants in response to the requests; wherein at least one data grant authorizes a first network unit to transmit data at a first bit-rate during at least one time-slot and at least one other data grant authorizes a second network unit to transmit data at a second bit-rate during at least one other time-slot, whereas the second bitrate differs from the first bit-rate; and

requesting a network unit capable of transmitting at multiple bit-rates to transmit at certain bit-rate out of said multiple bit-rates;

~~The method according to claim 20~~ wherein the stage of requesting is preceded by a stage of selecting said certain bit-rate in response to the requests for transmitting information.

24. (Cancelled) A computer readable medium having code embodied therein for causing an electronic device to perform the stages of:

receiving requests for transmitting information from a network unit, over an optical network, towards an apparatus; and

issuing data grants in response to at least the requests; wherein at least one data grant authorizes a first network unit to transmit data at a first bit-rate during at least one time-slot and at least one other data grant authorizes a second network unit

to transmit data at a second bit-rate during at least one other time-slot, whereas the second bit-rate differs from the first bit-rate.